

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of breaking a substrate of brittle material, the method comprising ~~the steps~~acts of:

providing a substrate of a brittle material,

heating the substrate with a laser beam to create a heated spot on the substrate,

moving the laser beam and the substrate with respect to each other to create a line of heated spots on the substrate,

cooling the heated spots on the substrate by locally applying a cooling medium such that a micro-crack in the line of heated spots is propagated on the substrate, and

breaking the substrate along the line of the propagated micro-crack by applying a force on the substrate

wherein the cooling medium comprises an aqueous surfactant solution.

2. (Currently amended) A—The method of breaking a substrate of brittle material according to claim 1, wherein the cooling medium further comprises air mixed with the aqueous surfactant solution.

3. (Currently amended) A—The method of breaking a substrate of brittle material according to claim 1, wherein the concentration of the surfactant is in the range of 0.01 to 1% of weight.

4. (Currently amended) A—The method of breaking a substrate of brittle material according to claim 1, wherein the aqueous surfactant solution comprises a cationic surfactant.

5. (Currently amended) A—The method of breaking a substrate of brittle material according to claim ~~3~~4, wherein the cationic surfactant comprises cetyl trimethyl ammonium bromide (CTAB).

6. (Currently amended) A—The method of breaking a substrate of brittle material according to claim 1, wherein the aqueous surfactant solution comprises a nonionic surfactant.

7. (Currently amended) A—The method of breaking a substrate of brittle material according to claim 56, wherein the nonionic surfactant comprises octadecyl deca(ethylenoxide) hydroxide.

8. (Currently amended) A—The method of breaking a substrate of brittle material according to claim 1, wherein the aqueous surfactant solution comprises an anionic surfactant.

9. (Currently amended) A—The method of breaking a substrate of brittle material according to claim 78, wherein the anionic surfactant comprises dodecylbenzene sulfonic acid sodium salt.

10. (Currently amended) A—The method of breaking a substrate of brittle material according to claim 1, wherein the brittle material comprises one or more of glass, crystalline silica, and ceramics. ~~or compositions thereof.~~

11. (New) A method of breaking a substrate of brittle material, the method comprising acts of:

providing a substrate of a brittle material,

heating the substrate with a laser beam to create a heated spot on the substrate,

moving the laser beam and the substrate with respect to each other to create a line of heated spots on the substrate,

cooling the heated spots on the substrate by locally applying an aqueous surfactant solution such that a micro-crack in the line of heated spots is propagated on the substrate and the aqueous surfactant solution enters the micro-crack, and

breaking the substrate along the line of the propagated micro-crack by applying a force on the substrate, wherein the aqueous surfactant solution enters the micro-crack prior to the breaking act.

12. (New) The method of breaking a substrate of brittle material according to claim 11, wherein the aqueous surfactant solution is selected to bond to broken substrate bonds in the micro-crack.

13. (New) The method of breaking a substrate of brittle material according to claim 11, wherein the aqueous surfactant solution further comprises air mixed with the aqueous surfactant solution.

14. (New) The method of breaking a substrate of brittle material according to claim 11, wherein the concentration of the aqueous surfactant solution is in the range of 0.01 to 1% of weight.

15. (New) The method of breaking a substrate of brittle material according to claim 11, wherein the aqueous surfactant solution comprises a cationic surfactant.

16. (New) The method of breaking a substrate of brittle material according to claim 15, wherein the cationic surfactant comprises cetyl trimethyl ammonium bromide (CTAB).

17. (New) The method of breaking a substrate of brittle material according to claim 11, wherein the aqueous surfactant solution comprises a nonionic surfactant.

18. (New) The method of breaking a substrate of brittle material according to claim 17, wherein the nonionic surfactant comprises octadecyl deca(ethylenoxide) hydroxide.

19. (New) The method of breaking a substrate of brittle material according to claim 11, wherein the aqueous surfactant solution comprises an anionic surfactant.

20. (New) The method of breaking a substrate of brittle material according to claim 19, wherein the anionic surfactant comprises dodecylbenzene sulfonic acid sodium salt.